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22850 7590 03/17/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

HENNING, MATTHEW T

ART UNIT

PAPER NUMBER

2131

DATE MAILED: 03/17/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/888,316

06/22/2001

Thomas R. Volpert JR.

290147US8

9555

TITLE OF INVENTION: SYSTEM AND METHOD FOR DATA ENCRYPTION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	06/17/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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22850 7590 03/17/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,316	06/22/2001	Thomas R. Volpert JR.	290147US8	9555

TITLE OF INVENTION: SYSTEM AND METHOD FOR DATA ENCRYPTION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	06/17/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
HENNING, MATTHEW T	2131	380-037000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,316	06/22/2001	Thomas R. Volpert JR.	290147US8	9555
22850	7590	03/17/2008	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			HENNING, MATTHEW T	
			ART UNIT	PAPER NUMBER
			2131	
DATE MAILED: 03/17/2008				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 647 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 647 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

09/888,316

Examiner

MATTHEW T. HENNING

Applicant(s)

VOLPERT, THOMAS R.

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/14/2007.
2. ☒ The allowed claim(s) is/are 1,3,5-9,21-23,25-31,34,35,38,41-44,48-50,53,56-59 and 62.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>Amended Claim Listing</u> . |

This action is in response to the communication filed on 12/14/2007.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Scott McKeown on Feb. 26, 2008.

The application has been amended as follows:

Please replace the current claims with the amended claim listing beginning on the following page.

Claim 1 (Previously Presented): A method of encrypting an input data string including a plurality of bits of binary data with a processing device communicatively coupled to a memory having executable instructions stored therein which cause the processing device to implement a method of encryption, the method comprising:

receiving the input data string for encryption at the processing device;

providing a control code index in the memory, the control code index being defined prior to encryption at the processing device, the control code index including a plurality of control codes each defining respective orders of n bit combinations of binary data, the respective orders of bit combinations of each control code defining control code segments;

determining an order in which to query the presence of each of 2^n different configurations of n bits within the input data string, the determined order being selected without any analysis of the input data string;

identifying a control code associated with the determined order using the control code index;

generating a position code using the identified control code in cooperation with a position code routine associated with the identified control code to determine positions of each of the 2^n different configurations of n bits in the input data string by comparing the 2^n different configurations of n bits within the input data string with a first one of the control code segments of the identified control code to identify which n bit segments of the input data string correspond to a first n bit segment within the control code, comparing additional ones of the control code segments in a serial fashion to previously unidentified ones of the n bit segments of the input data string, correspondences to the control code segment comparisons resulting in output values dictated by the position code routine which defines the generated position code; and

combining the identified control code and the generated position code as components of an encrypted data string.

Claims 2 (Canceled).

Claim 3 (Previously Presented): The method of Claim 1, wherein determining an order comprises selecting a predetermined order.

Claim 4 (Canceled).

Claim 5 (Previously Presented): The method of Claim 1, further comprising:
dividing the input data string into a plurality of blocks of data.

Claim 6 (Previously Presented): The method of Claim 5, wherein the number of bits within each of the plurality of blocks of data is individually determined in response to a random number generator.

Claim 7 (Previously Presented): The method of Claim 5, wherein dividing the input data string into a plurality of blocks of data, includes determining the individual number of bits within each of the plurality of blocks of data in accordance with a rule set.

Claim 8 (Previously Presented): The method of Claim 5, further comprising: generating a plurality of block codes associated with a plurality of blocks of data of the input data string, each block code indicating the number of bits within the associated block of data.

Claim 9 (Previously Presented): The method of Claim 8, further comprising: combining each of the plurality of block codes with the identified control code and the generated position code for the associated block of data.

Claims 10-20 (Canceled).

Claim 21 (Previously Presented): A method for encrypting an input data string, including a plurality of bits of binary data, the method comprising:

receiving the input data string for encryption;

providing a control code index, the control code index being defined prior to encryption, the control code index including a plurality of control codes each defining respective orders of n bit combinations, of binary data the respective orders of bit combinations of each control code defining control code segments;

determining an order in which to query the presence of each of 2^n different configurations of n bits within the input data string, the determined order being selected without any analysis of the input data string;

identifying a control code associated with the determined order using the control code index;

generating a position code using the identified control code in cooperation with a position code routine associated with the identified control code to determine positions of each of the 2^n different configurations of n bits in an input data string by comparing the 2^n different configurations of n bits within the input data string with a first one of the control code segments of the identified control code to identify which n bit segments of the input data string correspond to a first n bit segment within the control code, comparing additional ones of the control code segments in a serial fashion to previously unidentified ones of the n bit segments of the input data string correspondences to the control code segment comparisons resulting in output values dictated by the position code routine which defines the generated position code; and

combining the identified control code and the generated position code as components of an encrypted data string.

Claim 22 (Previously Presented): The method of Claim 21, further comprising arranging the input data string into a plurality of data blocks.

Claim 23 (Previously Presented): A computer readable storage medium including computer program instructions that cause a computer to implement a method of encrypting an input data string, including a plurality of bits of binary data, the method comprising:

receiving the input data string for encryption;

providing a control code index that is defined prior to encryption, the control code index including a plurality of control codes each defining respective orders of n bit combinations of binary data, the respective orders of bit combinations of each control code defining control code segments;

determining an order in which to query the presence of each of 2^n different configurations of n bits within the input data string, the determined order being selected without any analysis of the input data string;

identifying a control code associated with the determined order using the control code index;

generating a position code using the identified control code in cooperation with a position code routine associated with the identified control code to determine the positions of each of the 2^n different configurations of n bits in the input data string by comparing the 2^n different configurations of n bits within the input data string with a first one of the control code segments of the identified control code to identify which n bit segments of the input data string correspond to a first n bit segment within the control code, comparing additional ones of the control code segments in a serial fashion to previously unidentified ones of the n bit segments of the input data string, correspondences to the control code segment comparisons resulting in output values dictated by the position code routine which defines the generated position code; and

combining the identified control code and the generated position code as components of an encrypted data string.

Claims 24 (Canceled).

Claim 25 (Currently Amended): The computer readable storage medium including computer program instructions of Claim 23, ~~that cause a computer to implement a method~~ wherein determining an order includes selecting a predetermined order.

Claim 26 (Currently Amended): The tangible computer readable storage medium of Claim 23, ~~that cause a computer to implement a method,~~ further comprising:
dividing the input data string into a plurality of blocks of data.

Claim 27 (Currently Amended): The computer readable storage medium of Claim 26, ~~that cause a computer to implement a method,~~ wherein dividing the input data string into a plurality of blocks of data includes determining the individual number of bits within each of the plurality of blocks of data in response to a random number generator.

Claim 28 (Currently Amended): The computer readable storage medium of Claim 26 ~~that cause a computer to implement a method,~~ wherein dividing the input data string into a plurality of blocks of data, includes determining the individual number of bits within each of the plurality of blocks of data in accordance with a rule set.

Claim 29 (Currently Amended): The computer readable storage medium of Claim 26 ~~that cause a computer to implement a method,~~ wherein determining an order further comprises:
determining a first order associated with a first block of data and determining a second order associated with a second block of data wherein the first order is different than the second order.

Claim 30 (Currently Amended): The computer readable storage medium of Claim 26 ~~that cause a computer to implement a method,~~ wherein the computer program instructions further comprise:

generating a plurality of block codes associated with a plurality of blocks of data, each block code indicating the number of bits within the associated block of data.

Claim 31 (Currently Amended): The computer readable storage medium of Claim 30 ~~that cause a computer to implement a method,~~ wherein the computer program instructions further comprise:

combining the each of the plurality of block codes with the identified control code and the generated position code for the associated block of data.

Claims 32-33 (Canceled).

Claim 34 (Currently Amended): The computer readable storage medium of Claim 23 ~~that cause a computer to implement a method,~~ wherein identifying the control code includes randomly selecting the control code via a random number generator.

Claim 35 (Currently Amended): The computer readable storage medium of Claim 23 ~~that cause a computer to implement a method,~~ wherein determining an order includes generating an order using a rule set.

Claim 36-37 (Canceled).

Claim 38 (Currently Amended): The computer readable storage medium of Claim 23 ~~that cause a computer to implement a method,~~ wherein determining the order in which to query

the presence of each of 2^n different configurations of n bits of binary data within an input data string includes determining the order in which to query the presence of each of 4 different configurations of 2 bits within an input data string.

Claim 39-40 (Canceled)

Claim 41 (Currently Amended): The computer readable storage medium of Claim 23 ~~that cause a computer to implement a method, wherein the computer program instruction, further~~ comprise performing a further encryption of the encrypted data string.

Claim 42 (Currently Amended): The computer readable storage medium of Claim 41 ~~that cause a computer to implement a method, wherein encrypting the encrypted data string~~ comprises:

providing an encryption key having a first selected number of bits; and
performing an XOR function between the encryption key and the encrypted data string.

Claim 43 (Currently Amended): The computer readable storage medium of Claim 41 ~~that cause a computer to implement a method, wherein encrypting the encrypted data string~~ comprises:

determining an order in which to query the presence of each of 2^n different configurations of n bits within the input data string;

identifying a second control code associated with the determined order using the control code index each control code defining respective orders of n bit combinations of binary data;

generating a position code using the identified control code in cooperation with a position code routine associated with the identified control code to determine positions of each of the 2^n different configurations of n bits in the input data string by comparing the 2^n different configurations of the input data string with the associated 2^n bit configurations of the identified control code, the comparisons resulting in output values dictated by the position code routine which defines the generated position code; and

combining the second identified control code and the second generated position code to create a different encrypted version of the encrypted data string.

Claim 44 (Currently Amended): The computer readable storage medium of Claim 25 ~~that cause a computer to implement a method, wherein selecting a predetermined order includes~~ selecting a default order.

Claims 45-47 (Canceled).

Claim 48 (Previously Presented): The method of Claim 1, wherein identifying the control code includes randomly selecting the control code via a random number generator.

Claim 49 (Previously Presented): The method of Claim 1, wherein determining an order includes generating an order using a rule set.

Claim 50 (Previously Presented): The method of Claim 5, wherein determining an order includes determining a first order associated with a first block of data and determining a second

order associated with a second block of data wherein the first order is different than the second order.

Claim 51-52 (Canceled).

Claim 53 (Previously Presented): The method of Claim 1, wherein determining the order in which to query the presence of each of 2^n different configurations of n bits within an input data string includes determining the order in which to query the presence of each of 4 different configurations of 2 bits within an input data string.

Claim 54 (Canceled).

Claim 55 (Canceled).

Claim 56 (Previously Presented): The method of Claim 1, further comprising:
performing a further encryption of the encrypted data string.

Claim 57 (Previously Presented): The method of Claim 56, wherein performing a further encryption of the encrypted data string, further comprises:

providing an encryption key having a first selected number of bits; and

performing an XOR function between the encryption key and the encrypted data string.

Claim 58 (Previously Presented): The method of Claim 56, wherein performing a further encryption of the encrypted data, further comprises:

determining an order in which to query the presence of each of 2^n different configurations of n bits within the input data string each control code defining respective orders of n bit combinations of binary data;

identifying a second control code associated with the determined order using the control code index;

generating a position code using the identified control code in cooperation with a position code routine associated with the identified control code to determine positions of each of the 2^n different configurations of n bits in the input data string by comparing the 2^n different configurations of the input data string with the associated 2^n bit configurations of the identified control code, the comparisons resulting in output values dictated by the position code routine which defines the generated position code; and

combining the second identified code and the second generated position code to create a different encrypted version of the encrypted data string.

Claim 59 (Previously Presented): The method of Claim 3, wherein selecting a predetermined order includes selecting a default order.

Claims 60-61 (Canceled).

Claim 62 (Currently Amended): An electronic device for encrypting an input data string, including a plurality of bits of binary data, comprising:

a processor configured to receive the input data string for encryption;

a memory configured to include a control code index, the control code index being defined prior to encryption by the processor, the control code index including a plurality of control codes, the control codes having corresponding values each defining respective orders of n bit combinations of binary data, the respective orders of bit combinations of each control code defining control code segments,

wherein the processor is operably linked to the memory for determining upon reception of the input data string, an order in which to query the presence of each of two 2^n different configurations of n bits within the input data string, the determined order being selected without any analysis of the input data string, and identifies a control code associated with the determined order by access of the control code index, the processor generating a position code, using the identified control code in cooperation with a position code routine associated with the identified control code to determine positions of each of the two 2^n different configurations of n bits in the input data string by comparing the 2^n different configurations of n bits within the input data string with a first one of the control code segments of the identified control code to identify the which n bit segments of the input data string correspond to a first n bit segment within the control code, comparing additional ones of the control code segments in a serial fashion to previously unidentified ones of the n bit segments of the input data string, correspondences to the control code segment comparisons resulting in output values dictated by the position code routine which defines the generated position code to combine the identified control code and the generated position code as components of an encrypted data string.

Reason's for Allowance

The following is an examiner's statement of reasons for allowance:

The closest prior art, De Maine (US Patent Number 3,656,178), disclosed an encryption/compression system similar in nature to the claimed invention, which included determining an order in which to query the presence of different configurations of bits within an input data block. De Maine further disclosed generating a position code based upon the determined order by identifying the location of the different configurations of bits within the input data block, in a serial fashion. However, the prior art, including De Maine did not teach or suggest determining the order in which to query the presence of the different configurations of bits without any analysis of the input data string, wherein segments of a control code associated with the determined order are compared to each segment of the input data which has not been previously identified, to generate the position code, in the specific combination of elements as claimed. As such, the claims distinguish over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Claims 1, 3, 5-9, 21-23, 25-31, 34, 35, 38, 41-44, 48-50, 53, 56-59 and 62 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW T. HENNING whose telephone number is (571)272-3790. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew Henning/
Assistant Examiner
Art Unit 2131
2/27/2008

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2131